GREYHOUND 1040 Full Gigabit Ethernet 19" Ruggedized Rack-Mount Switches, Media Modules and Power Supplies

The GREYHOUND 1040 switches include 12 fixed ports and also feature two media module slots that enable you to add 8 additional ports each, for a maximum of 28 ports per device.

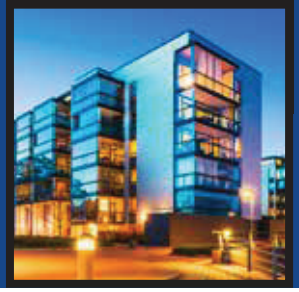
The switch's two power supplies, available in high- or low-voltage options, can be changed in the field for maximum uptime. You can keep your systems up and running by quickly swapping out one power supply, while the network is powered by the redundant supply. More and more applictions need power, and the GREYHOUND 1040 switches support up to 16 PoE and PoE+ ports.

For all-around network protection and uptime, GREYHOUND 1040 switches offer enhanced Layer 2 and Layer 3 features through Hirschmann's operating system, HiOS. The software includes comprehensive security, diagnostic and redundancy features. The device's precise synchronization also enables applications to comply with stringent real-time requirements.

Technical Information

Product Description Basic Units		
Type	**GRS1042-xx**	**GRS1142-xx**
		
Description	Modular Managed Industrial Switch, fanless design, Layer 2 or Layer 3	
Port Type and Quantity	Ports in total up to 28 Basic unit 12 fixed ports: 2 x GE/2.5GE SFP slot plus 10 x FE/GE TX ports expandable with two media module slots; 8 FE/GE ports per module	Ports in total up to 28; ports on rear Basic unit 12 fixed ports: 4 x GE/2.5GE SFP slot plus 2 x FE/GE SFP plus 6 x FE/GE TX expandable with two media module slots; 8 FE/GE ports per module
Number of Fiber Ports	Up to 22 fiber ports: 18 GE/FE plus 4 x 2.5 GE/GE	
Additional Interfaces		
V.24 Interface	1 x RJ45 socket	
Out-of-Band Management	1 x 10/100 RJ45; Management port	
SD	1 x to connect auto-configuration adapter ACA31 (SD)	
USB	1 x to connect auto-configuration adapter ACA22 (USB)	
Power Requirements		
Operating Voltage Input 1&2	24 to 48 V DC, or 60 to 250 V DC and 110 to 240 V AC, or 48 to 54 V DC (PoE/PoE+)	
Power Consumption	Basic unit with one power supply 32 W (110 Btu (IT)/h)	
Mechanical Construction		
Weight	3600 g	
Protection Class	IP30	
Dimensions (W x H x D)	444 x 44 x 354 mm	
Software		
Supported HiOS Software Levels	Layer 2 Advanced (L2A) or Layer 3 Advanced (L3A)	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com



Technical Information

Product Description Media Modules for GREYHOUND	
Type	**GMMxx**
	
Port Type and Quantity	Up to 8 FE/GE ports, more details in the configurator for ST, SC, RJ45, SFP slots
Power over Ethernet	Up to 180 W overall, up to 120 W per media module
Power Consumption	5.5 to 10 W (without PoE)
Weight	490 to 650 g
Gigabit ETHERNET Network Size	
Twisted Pair (TP)	0 to 100 m
Multimode Fiber (MM) 50/125 µm	0 to 550 m, 7.5 dB link budget; 62.5/125 µm, 0 to 275 m, 7.5 dB link budget (with M-SFP-SX/LC)
Singlemode Fiber (SM) 9/125 µm	0 to 20 km, 11 dB link budget (with M-SFP-LX/LC); 14 to 42 km, 5 to 20 dB link budget (with M-SFP-LX+/LC)
Singlemode Fiber (LH) 9/125 µm	23 to 80 km, 5 to 22 dB link budget (with M-SFP-LH/LC); 71 to 128 km, 15 to 30 dB link budget (with M-SFP-LH+/LC)
Fast ETHERNET Network Size	
Twisted Pair (TP)	0 to 100 m
Multimode Fiber (MM) 50/125 µm	50/125 µm, 0 to 5000 m, 8 dB link budget; 62.5/125 µm, 0 to 4000 m, 11 dB link budget (with M-Fast SFP-MM/LC)
Singlemode Fiber (SM) 9/125 µm	0 to 25 km, 13 dB link budget (with M-Fast SFP-SM/LC); 25 to 65 km, 10 to 29 dB link budget (with M-Fast SFP-SM+/LC)
Singlemode Fiber (LH) 9/125 µm	47 to 104 km, 10 to 29 dB link budget (with M-Fast SFP-LH/LC)

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

Product Description Power Supplies for GREYHOUND	
Type	**GPSxx**
	
Variant	Switch only, or switch and PoE, or PoE only
Operating Voltage	24 to 48 V DC, or 60 to 250 V DC and 110 to 240 V AC, or 48 to 54 V DC (PoE/PoE+)
Power Consumption	35 to 38 W + up to 180 W PoE
Weight	600 to 750 g

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

Common Technical Data	
Type	**Basic Units, Media Modules and Power Supplies**
Ambient Conditions	
Operating Temperature	0 °C to 60 °C, or -40 °C to +70 °C, IEC 60068-2-2 Dry Heat Test +85 °C 16 Hours, optional conformal coating
Rel. Humidity (non-condensing)	5% to 95%
Approvals Configurable	
Safety of Industrial Control Equipment	EN 60950-1, EN 61131-2, cUL60950-1
Substation	IEC 61850-3, IEEE 1613
Ship	GL/DNV (Germanischer Lloyd/Det Norske Veritas) (pending)
Hazardous Locations	ISA-12.12.-01 Class 1 Div. 2 (pending), ATEX Zone 2 (pending)
Transportation	NEMA TS2, EN 50121-4, EN 50155
Accessories	
Device Replacement and Logging	ACA22-USB EEC 942 124-001, ACA31 942 074-001

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

GREYHOUND GRS1042/GRS1142 Switch Configurations

Design
GRS1 = GREYHOUND 19" Rugged Switch

Port Position
0 = Ethernet ports on front and power supply input on rear
1 = Ethernet ports and power supply input on rear

Data Rate
4 = FE/GE-Switch

PoE Support
2 = PoE/PoE+ Support
(please configure PoE power supply and PoE media modules separately)

Configuration Fixed Ports
AT2Z = 2 x GE/2.5 GE SFP slot plus 10 x FE/GE TX ports
6T6Z = 4 x GE/2.5 GE SFP slot plus 2 x FE/GE SFP plus 6 x FE/GE TX

Temperature Range
S = 0 °C to +60 °C
T = -40 °C to +70 °C
E = -40 °C to +70 °C conformal coating

Power Supply Input 1*
L = 24 to 48 V DC or 48 to 54 V DC (PoE/PoE+)
H = 60 to 250 V DC and 110 to 240 V AC

Power Supply Input 2*
L = 24 to 48 V DC or 48 to 54 V DC (PoE/PoE+)
H = 60 to 250 V DC and 110 to 240 V AC

Cover Plate Power Supply Input 2
0 = No cover
1 = Cover plate assembled

Cover Plate Media Modules
0 = No cover
1 = 1 x Cover plate assembled
2 = 2 x Cover plate assembled

Approvals
Z9 = CE, FCC, EN 61131, EN 60950
Y9 = Z9 + cUL60950, (UL)
X9 = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, (UL, US haz.loc)
W9 = Z9 + ATEX Zone 2, (EU-haz.loc)
V9 = Z9 + IEC 61850-3, IEEE 1613 (Substation)
VY = Z9 + cUL60950, IEC 61850, IEEE 1613 (UL, Substation)
U9 = Z9 + GL, (Ship)
UY = Z9 + cUL60950, GL (UL, Ship)
UX = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, GL (UL, US-haz.loc, Ship)
UW = Z9 + cUL60950, ATEX Zone 2, GL (EU-haz. loc, UL, Ship)
T9 = Z9 + EN 50121-4, NEMA TS2 (Train, ITS)
TY = Z9 + cUL60950, EN 50121-4, NEMA TS2 (UL, Train, ITS)
S9 = Z9 + EN 50121-4, EN 50155, NEMA TS2 (Train on-board, ITS)
SY = Z9 + cUL60950, EN 50121-4, EN 50155, NEMA TS2 (UL, Train on-board, ITS)

Customization
HH = Hirschmann Standard

Hardware Configuration
S = Standard

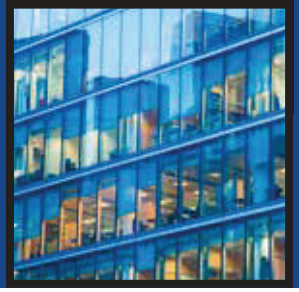
Software Configuration
E = Standard

Software Level
2A = HiOS Layer 2 Advanced
3A = HiOS Layer 3 Advanced

Software Packages
99 = No package
MR = Unicast + Multicast Routing
UR = Unicast Routing

Software Version
XX.X. = Current Software Release

*** NOTE:** Power supplies need to be ordered separatly.



GREYHOUND GMM20, GRM3x, GRM4x Media Module Configurations

G	M	M	3	2	-	M	M	M	M	T	T	T	T	T	V	9	H	H	S

Design

GMM = Greyhound Switch Media Module

Data Rate

2 = FE Fiber Ports
3 = FE Fiber + FE/GE TX Ports
4 = FE/GE SFP + FE/GE TX Ports

Hardware Type

0 = Standard
2 = PoE/PoE+ Support (please configure PoE power supply separately)

Port Configuration 1 and 3

TT = 2 x TX, RJ45, 10/100/1000 Mbit/s
OO = 2 x SFP Slots, 100/1000 Mbit/s
MM = 2 x Multimode FX, SC, 100 Mbit/s
NN = 2 x Multimode FX, ST, 100 Mbit/s
VV = 2 x Singlemode FX, SC, 100 Mbit/s
UU = 2 x Singlemode FX, ST, 100 Mbit/s

Port Configuration 5 and 7

TT = 2 x TX, RJ45, 10/100/1000 Mbit/s
OO = 2 x SFP Slots, 100/1000 Mbit/s
MM = 2 x Multimode FX, SC, 100 Mbit/s
NN = 2 x Multimode FX, ST, 100 Mbit/s
VV = 2 x Singlemode FX, SC, 100 Mbit/s
UU = 2 x Singlemode FX, ST, 100 Mbit/s

Port Configuration 2 and 4

TT = 2 x TX, RJ45, 10/100/1000 Mbit/s
OO = 2 x SFP Slots, 100/1000 Mbit/s
MM = 2 x Multimode FX, SC, 100 Mbit/s
NN = 2 x Multimode FX, ST, 100 Mbit/s
VV = 2 x Singlemode FX, SC, 100 Mbit/s
UU = 2 x Singlemode FX, ST, 100 Mbit/s

Port Configuration 6 and 8

TT = 2 x TX, RJ45, 10/100/1000 Mbit/s
OO = 2 x SFP Slots, 100/1000 Mbit/s
MM = 2 x Multimode FX, SC, 100 Mbit/s
NN = 2 x Multimode FX, ST, 100 Mbit/s
VV = 2 x Singlemode FX, SC, 100 Mbit/s
UU = 2 x Singlemode FX, ST, 100 Mbit/s

Temperature Range

S = 0 °C to +60 °C
T = -40 °C to +70 °C
E = -40 °C to +70 °C conformal coating

Approvals

Z9 = CE, FCC, EN 61131, EN 60950
Y9 = Z9 + cUL60950, (UL)
X9 = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, (UL,US haz.loc) pending
W9 = Z9 + ATEX Zone 2, (EU-haz.loc) pending
V9 = Z9 + IEC 61850-3, IEEE 1613 (Substation)
VY = Z9 + cUL60950, IEC 61850, IEEE 1613 (UL, Substation) pending
U9 = Z9 + GL, (Ship) pending
UY = Z9 + cUL60950, GL (UL, Ship) pending
UX = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, GL (UL, US-haz.loc, Ship) pending
UW = Z9 + cUL60950, ATEX Zone 2, GL (EU-haz. loc, UL, Ship) pending
T9 = Z9 + EN 50121-4, NEMA TS2 (Train, ITS)
TY = Z9 + cUL60950, EN 50121-4, NEMA TS2 (UL, Train, ITS) pending
S9 = Z9 + EN 50121-4, EN 50155, NEMA TS2 (Train on-board, ITS)
SY = Z9 + cUL60950, EN 50121-4, EN 50155, NEMA TS2 (UL, Train on-board, ITS) pending

Customization

HH = Hirschmann Standard

Hardware Configuration

S = Standard

GREYHOUND GPSx Power Supply Configurations

Design

GPS = Greyhound Power Supplies

Hardware Type

1 = Standard (switch only)
2 = PoE (PoE only) (later release)
3 = PoE and switch

Power Supply

C = 24 to 48 V DC
K = 60 to 250 V DC and 110 to 240 V AC
P = 48 V DC (PoE) and 54 V DC (PoE+)

Temperature Range

S = 0 °C to +60 °C
T = -40 °C to +70 °C
E = -40 °C to +70 °C conformal coating

Approvals

Z9 = CE, FCC, EN 61131, EN 60950
Y9 = Z9 + cUL60950, (UL)
X9 = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, (UL,US haz.loc)
W9 = Z9 + ATEX Zone 2, (EU-haz.loc)
V9 = Z9 + IEC 61850-3, IEEE 1613 (Substation)
VY = Z9 + cUL60950, IEC 61850, IEEE 1613 (UL, Substation)
U9 = Z9 + GL, (Ship)
UY = Z9 + cUL60950, GL (UL, Ship)
UX = Z9 + cUL60950, ISA12.12 Class 1 Div. 2, GL (UL, US-haz.loc, Ship)
UW = Z9 + cUL60950, ATEX Zone 2, GL (EU-haz. loc, UL, Ship)
T9 = Z9 + EN 50121-4, NEMA TS2 (Train, ITS)
TY = Z9 + cUL60950, EN 50121-4, NEMA TS2 (UL, Train, ITS)
S9 = Z9 + EN 50121-4, EN 50155, NEMA TS2 (Train on-board, ITS)
SY = Z9 + cUL60950, EN 50121-4, EN 50155, NEMA TS2 (UL, Train on-board, ITS)

Customization

HH = Hirschmann Standard